

## **REMARKS/ARGUMENTS**

### **1.) Claim Amendments**

The Applicant has amended claims 13, 16, 19 22 and 23 to more particularly point out and distinctly claim the subject matter that Applicants regard as the invention. No new matter has been added to those claims, and no claims have been cancelled or added. Accordingly, claims 13-23 remain pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

### **2.) Examiner Objections – Information Disclosure**

The Examiner objected to the information disclosure statement filed on February 23, 2005, on the basis that a legible copy of “IBM Technical Disclosure Bulletin” (Cite Number AC) was not provided. The Applicants submit herewith a legible copy of that reference.

### **3.) Examiner Objections – Specification**

The Examiner objected to the specification as including references to claims. In response, the Applicant has herein amended the specification to delete the paragraph containing the unnecessary claim references.

### **4.) Claim Rejections – 35 U.S.C. §112**

The Examiner rejected claims 13-23, under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Applicants have amended claims 13, 22 and 23 to clarify those claims as noted by the Examiner.

The Examiner also rejected claims 13-23 under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention, specifically noting certain limitations in claims 13, 19, 22 and 23 as lacking antecedent bases; the Examiner did not note any specific rejections to limitations in claims 14-18 or 20-21, but it is assumed that they were rejected on the basis that they are dependent from a rejected base claim. The

Applicants have amended claims 13, 19, 22 and 23 to clarify those claims and eliminate the lack of antecedent bases noted by the Examiner.

The Examiner also rejected claims 13-21 under §112, second paragraph, as being incomplete, noting a specific limitation of claim 13 as needing clarification; the Examiner did not note any specific rejection to limitations in claims 14-21, but it is assumed that they were rejected on the basis that they are dependent from claim 13. The Applicants have amended claim 13 to clarify the elements noted by the Examiner. It is noted that "the data which is detected as erroneous" is not compared with anything. Rather, the receiver performs a comparison of the aggregated reliability measure to a reliability threshold; that comparison indicates whether the received data is erroneous.

The Examiner also rejected claims 16-17 under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention, specifically noting a limitation in claim 16 as lacking antecedent basis; the Examiner did not note any specific rejection to limitations in claim 17, but it is assumed that it was rejected on the basis that it is dependent from claim 16. The Applicants have amended claim 16 to clarify that claim and eliminate the lack of antecedent basis noted by the Examiner.

#### **5.) Allowable Subject Matter**

The Applicants amendments to claims 13, 14, 19, 22 and 23 overcomes the Examiner's rejections thereof in view of §112. Therefore, whereas the Examiner has not asserted any additional bases of rejection for claims 22 and 23, those claims should be allowable. Furthermore, whereas the Examiner has not asserted any additional bases of rejection for claims 15-17 or 19-21, each of those claims would be allowable if rewritten in independent form, including the limitations of claim 13 and any intervening claim(s). As established *infra*, however, the Applicants believe claim 13 to be allowable over the cited references and, therefore, do not choose to so amend any of claims 15-17 or 19-21 at this time.

## 6.) Claim Rejections – 35 U.S.C. §102(e)

The Examiner rejected claims 13 and 18 as being anticipated by Aikawa, *et al.* (US 2004/0025099). The Examiner also rejected claim 13 as being anticipated by Itoh (US 2005/0226182). The Applicants traverse the rejections.

First, it is to be remembered that anticipation requires that the disclosure of a single piece of prior art reveals **every** element, or limitation, of a claimed invention. Furthermore, the limitations that must be met by an anticipatory reference are those set forth in each statement of function in a claims limitation, and such a limitation cannot be met by an element in a reference that performs a different function, even though it may be part of a device embodying the same general overall concept. Whereas Aikawa and Itoh fail, individually, to anticipate each and every limitation of claim 13, claim 13 is not anticipated by either of those references.

Claim 13 recites:

13. A method for the transmission of data from a transmitter to a receiver, wherein a first protocol in the receiver performs a check whether received data is erroneous and wherein the transmitter performs a further data transmission according to said check, and wherein the first protocol processes the received data and passes a service data unit to the next higher protocol layer, said method comprising the steps of:

determining a reliability measure for the received data;

aggregating the reliability measure for at least a part of the service data unit;

performing a comparison of the aggregated reliability measure to a reliability threshold; and,

performing retransmission of said received data, which is detected as erroneous, according to the result of said comparison. (emphasis added)

Applicants' invention is directed to an environment in which an application can cope with a limited amount of errors within received data, in which case lower protocol layers do not need to provide error free data. On a transmission link which may suffer a significant number of data errors, however, at least some of the errors must be corrected. Thus, the invention does not necessarily provide a perfect solution for data errors, but a "just good enough" retransmission scheme. The "just good enough" principle is facilitated by determining a reliability measure for received data and aggregating it for at least part of

a service data unit. The aggregated reliability measure is then compared to a reliability threshold. If the comparison indicates that the number of errors in the received data exceeds the threshold, then the data is retransmitted.

Aikawa and Itoh each fail to disclose that a reliability measure is aggregated for a service data unit (or a part of it); *i.e.*, that there is a correspondence between the higher layer data units (SDU) and the range of the data for which the reliability is determined (*i.e.*, aggregated). Furthermore, there is no teaching in either of those references to compare such an aggregated data reliability measure to a reliability threshold and, as a function of such comparison, to retransmit the data. Both Aikawa and Itoh relate to the reliability of links and not the data transported over such links (*i.e.*, they relate to the means of transport and not to specific subsections of the content transported). Therefore, whereas Aikawa and Itoh fail to disclose, individually, each and every limitation of claim 13, that claim is not anticipated by either of those references. Whereas claim 14 is dependent from claim 13, and includes the limitations thereof, it is also not anticipated by either of those references. Furthermore, the Examiner has not indicated any bases for rejection of claims 15-21, which are dependent from claim 13 and include the limitations thereof. Accordingly, claims 15-21 are also not anticipated by Aikawa or Itoh.

## **7.) Claim Rejections – 35 U.S.C. §103(a)**

The Examiner rejected claims 13 and 14 as being unpatentable over Malladi, *et al.* (US 2003/0210668) in view of Schmidt, *et al.* (US 7,107,498). The Examiner also rejected claims 13 and 14 as being unpatentable over Mantha, *et al.* (US 2003/0126551) in view of Schmidt. The Applicants traverse the rejections.

Similar to Aikawa and Itoh, Malladi and Mantha relate to the reliability of links and not the data transported over such links (*i.e.*, they relate to the means of transport and not to specific subsections of the content transported). As recognized by the examiner, neither Malladi or Mantha teach a reliability measure that is aggregated for a service data unit (or a part of it); *i.e.*, that there is a correspondence between the higher layer data units (SDU) and the range of the data for which the reliability is determined (*i.e.*,

aggregated). Furthermore, there is no teaching in either of those references to compare such an aggregated data reliability measure to a reliability threshold and, as a function of such comparison, to retransmit the data. Likewise, Schmidt fails to cure the deficiencies of Malladi and Mantha because it also fails to teach a reliability measure that is aggregated for a service data unit, or the comparison of such an aggregated data reliability measure (for a service data unit) to a reliability threshold and, as a function of such comparison, to retransmit the data. Accordingly, the Examiner has not established a *prima facie* case of obviousness of claim 13. Whereas claim 14 is dependent from claim 13, and includes the limitations thereof, it is also not obvious over Malladi or Mantha in view of Schmidt. Furthermore, the Examiner has not indicated any bases for rejection of claims 15-21, which are dependent from claim 13 and include the limitations thereof. Accordingly, claims 15-21 are also not obvious over those references.

### **CONCLUSION**

In view of the foregoing amendments and remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 13-23.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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